Toxicity has been limited, provided it is given slowly over a number of hours. Headaches have been reported in 20% of patients and occasionally pallor, nausea, fever or chills. The cost of IV immune-globulin therapy is considerable, however, about $70 per gram.

Intravenously given immune globulin clearly is effective in managing immune hematologic disorders, but its precise role in pediatric hematology has not been completely established. Acute immune thrombocytopenic purpura in children is usually a benign, self-limited condition and, under most circumstances, the cost of giving IV immune globulin does not justify its regular use. A more appropriate use of this therapy may be in patients with potentially serious bleeding or as an alternative to splenectomy for some patients.

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Hemophilus influenzae Type b Immunization

A POLYSACCHARIDE VACCINE is now available for the prevention of invasive *Hemophilus influenzae* type b (Hib) disease. Vaccine efficacy is estimated at about 90% for children aged 2 to 5 years. The Hib vaccine induces an antibody response that is directly related to the age of the child. Infants respond less frequently and the current vaccine is of no value in children younger than 18 months.

The Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and the American Academy of Pediatrics recommend that all children at 24 months of age receive the Hib vaccine. Additionally, children between the ages of 24 and 71 months should be considered for immunization because the vaccine has proved to be safe and effective. Because children aged 2 to 3 years who attend day-care facilities are at higher risk than older children, higher priority should be given to the younger children. The vaccine is not recommended for children older than 71 months or for adults.

Immunizing children aged 18 to 23 months remains controversial. The ACIP recommends that immunization should be considered for children at 18 months of age who are in known high-risk groups, including those attending day-care facilities and children with chronic conditions known to cause an increased risk for Hib disease such as anatomic or functional asplenia (sickle cell disease or splenectomy) and malignant lesions associated with immunosuppression. Children receiving the Hib vaccine at between 18 and 23 months of age may need to be reimmunized 6 to 18 months following the original immunization to ensure protection. Hib and the diphtheria-tetanus-pertussis (DTP) vaccine can be administered simultaneously at separate sites without impairing the immune response to the individual antigens.

Hib immunization is given as a single subcutaneous dose of 0.5 ml. Mild local reactions and low-grade fever may occur, but severe systemic reactions are extremely rare. Simultaneous administration of Hib with DTP does not result in increased reactions to either vaccine. New Hib vaccines are being developed that may provide protection of children younger than 18 months.

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AIDS in Children

PEDIATRIC acquired immunodeficiency syndrome (AIDS) is a distinct immunodeficiency disorder diagnosed on the basis of epidemiologic, immunologic and virologic data. Currently there are about 200 cases of pediatric AIDS that conform to strict diagnostic criteria established by the Centers for Disease Control. There are probably two to three times that number who have AIDS-related disorders. The total number of AIDS cases in children continues to increase at the same rate as in the adult population.

Epidemiologic factors are the initial indicator for the diagnosis of pediatric AIDS. The following are important risk factors: mothers who use drugs intravenously or who are prostitutes, heterosexual mothers with bisexual husbands, a history of blood transfusions within the preceding five years (this interval may require modification as additional information is obtained), infusion with factor VIII concentrate or an infant born into a family where the father has hemophilia. Persons capable of transmitting the AIDS virus (human T-lymphotropic virus type III/lymphadenopathy-associated virus [HTLV-III/LAV]) are not necessarily ill. Most cases of AIDS from transfusion follow multiple transfusions to a premature or immunocompromised infant.

Infants with AIDS present clinically in a manner similar to patients with other immunodeficiency disorders: recurrent and frequent infections, opportunistic infection, failure to thrive, chronic diarrhea, developmental delay, lymphadenopathy and skin infection are frequent features. Features relatively unique to pediatric AIDS are recurrent parotitis and chronic lymphoid interstitial pneumonitis. The age of onset may vary from the first month of life to as long as five years after exposure. Most infants become symptomatic within the first year.

Laboratory abnormalities include lymphopenia, thrombocytopenia and abnormal chest roentgenograms. In contrast to other immunodeficiency disorders, patients usually have elevated serum immunoglobulins. The T-helper/T-suppressor cell ratio is usually reduced, but unlike that in adult patients may be elevated. This test should not be used to establish a diagnosis. Other immunologic studies show significant impairment of T-cell and B-cell immunity. The most important laboratory test is that of antibody to HTLV-III/LAV. Maternal transfer of immunoglobulin G antibody to HTLV-III/LAV occurs so that testing should be done only after 6 months of age. Isolation of HTLV-III/LAV in an infant younger than 6 months establishes direct infection. Diseases that require ex-